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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,259	09/25/2001	Rene Nantua	085488-9100 (4748-TC-SB)	8410

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EXAMINER

PEAVEY, ENOCH E

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 08/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/963,259

Applicant(s)

NANTUA ET AL.

Examiner

Enoch E Peavey

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 7 is objected to because of the following informalities: in claim 7, line 2, the terminology "pseudo-U-shaped" makes the claim objectionable, examiner suggest using "generally u-shaped". Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, lines 6-7, "the assembly being capable of having no means allowing the association of the sensor past which the encoder can move", makes the claim indefinite. It is unclear what is meant by this limitation. The term "sensor past" is not common terminology in the art. Please further explain. The claim will be interpreted in accordance with the positively claimed structural elements.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3676

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 4-8 and 12-15, as best understood, are rejected under 35

U.S.C. 102(b) as being anticipated by Merklein et al., US No. 5,969,518. Merklein discloses an assembly forming a seal comprising a stationary armature (4) secured to a stationary support (2). There is a moving armature (3a) bearing the encoder (3b) and secured to the rotating support (1). The multi-pole magnetic encoder comprises a low even number of poles (Col. 2, lines 60-64) to allow an exterior lateral face of the stationary armature to be distanced from the sensor such that magnetic flux of the encoder (3b) may be detected by the sensor (6) through the stationary armature (4).

6. There is a seal (5) secured to the stationary armature (4), the seal (4) comprising at least one dynamic means (engaging 3a) such as a lip rubbing against the rotating support and having no static sealing heel (FIG. 1). The moving armature comprises a first wall (inner most radial extending wall of 3a) and a third wall (contacting 3b), which is offset axially toward the exterior with respect to the first wall (Fig. 1). The first wall is connected via a connection fillet to a first cylindrical surface by which the moving armature bears against the moving support (i.e. the portion of 3a contacting 1 along an axial surface). The third wall (contacting 3b) bears the magnetic encoder (3b0).

7. The moving armature (3a) comprises a base piece that has a cutout forming a fourth radial annular wall offset toward the exterior coated with the material of which the magnetic encoder is made (Fig. 1).

Art Unit: 3676

8. The first annular wall and the second annular wall form an annular groove (containing seal 5) with an opening facing toward the exterior and have a u-shape (Fig. 1).
9. The exterior lateral face of the groove comprises bearing surfaces for at least one dynamic sealing lip (5).
10. An exterior lateral surface of the stationary armature (portion of 4 contacting 2 along it's axial direction) is offset toward the interior with respect to a plane tangential to exterior lateral faces of the bearing support or ring (Fig. 1).
11. The sensor may be of the Hall effect probe type (Col. 3, line 9).
12. Claims 1, 3, 10 and 11 as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Hofmann et al., US No. 5,898,388. Hofmann discloses an assembly forming a seal comprising a stationary armature (5) secured to a stationary support (1). There is a moving armature (11) bearing the encoder (4) and secured to the rotating support (at 11). The multi-pole magnetic encoder (4) comprises a low even number of poles to allow an exterior lateral face of the stationary armature (5) to be distanced from the sensor (12) such that magnetic flux of the encoder may be detected by the sensor (12) through the stationary armature (Fig. 1).
13. The seal covers an exterior lateral face of a seal support wall of the stationary armature (Fig. 1). The seal comprises a static seal heel (portion of seal located between 1 and 5) in contact with an upper exterior lateral wall of the stationary support (1) and at least one dynamic sealing means (10) running against the rotating support.

14. The seal comprises a static heel, an annular band and at least one dynamic seal lip (Fig. 1).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Merklein in view of Tajima et al., US No. 6,575,637. Merklein discloses the same assembly as applicant except for the encoder being filled with strontium ferrite or barium ferrite. Tajima discloses a filler of barium ferrite in order to obtain a magnetizeable material (Col. 9, line 67). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Merklein as taught by Tajima in order to obtain a magnetizeable material.

17. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman in view of Tajima et al., US No. 6,575,637. Hoffmann discloses the same assembly as applicant except for the encoder being filled with strontium ferrite or barium ferrite. Tajima discloses a filler of barium ferrite in order to obtain a magnetizeable material (Col. 9, line 67). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Hoffman as taught by Tajima in order to obtain a magnetizeable material.

Art Unit: 3676

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Enoch E Peavey whose telephone number is 305 1977.

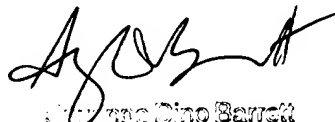
The examiner can normally be reached on Mon-Fri 8:00 am to 4:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (703) 308- 3179. The fax phone numbers for the organization where this application or proceeding is assigned are 305 3597 for regular communications and 305 3597 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 1113.

Enoch E Peavey
Art Unit 3676

July 28, 2003


Jerome Dino Barrett
Primary Examiner